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Filed : October 27,2003

REMARKS

In the office action, the examiner objected to the drawings on the ground that the feature "the bent portion formed at both ends of the grip" is not shown in the drawings. Accordingly, the applicant has canceled this feature.

The examiner objected to the abstract of the disclosure on the ground that the first sentence thereof is incomprehensible. The examiner objected to the specification because of the wording error therein. Accordingly, the applicant has reviewed the overall specification and abstract and amended the same to correct the wording errors therein and to more clearly describe the present invention. This is to verify that no new matter has been introduced by this amendment.

In the office action, the examiner rejected Claims 1 and 6 under 35 U.S.C. 102(b) as being anticipated by Petersen (U.S. Patent No. 6,500,187). The examiner further rejected Claims 4 and 8 under 35 U.S.C. 103(a) as being unpatentable over Petersen (U.S. Patent No. 6,500,187). The examiner further rejected Claims 2, 3, 5 and 7 under 35 U.S.C. 103(a) as being unpatentable over Petersen (U.S. Patent No. 6,500,187) in view of Taylor et al. (U.S. patent No. 6,113,616). Accordingly, the applicant has amended the claims to more clearly differentiate the features of the present invention from the technologies disclosed by the cited references.

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More specifically, with respect to the invention defined in Claim 1, the applicant has clarified that, in the blood vessel knife of the present invention, (1) the cutter holder engages with the tip portion of the grip from one side of either inside or outside of the tip portion and projects from an opposite side of the tip portion, (2) the cutting edge of the knife main body is oriented upwardly with respect to a blood vessel to be cut. With respect to the invention defined in another independent claim, i.e., Claim 4, in the blood vessel knife of the present invention, (3) the tip portion is provided with a long hole that penetrates through one side to another side of the tip portion at a central portion thereof and a slit at a tip thereof. These essential features of the present invention are not shown or suggested by the cited Petersen or Taylor et al. reference.

The cited Petersen reference is directed to a scalpel having a blade with a fitting. According to the description in the abstract, the scalpel is assembled to its proximal end with the fitting having a proximally facing opening sized to receive an end of a distal portion of a detachable handle. The handle includes a proximal portion designed to be gripped by the surgeon and a distal portion including a male coupling half designed to be received within the proximal opening of the fitting, which proximal opening is configured as a female coupling half. The proximal and distal portions of the handle are angled with

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respect to one another defining a predetermined angle. The male coupling half may be inserted within the female coupling half in either one of two diametrically opposed orientations. Thus, due to the angulation between the proximal portion of the handle and the distal portion of the handle, the proximal portion of the handle is either angled downwardly or upwardly with respect to the axis of the blade itself. By this structure, the handle may be attached to the blade in either one of these two positions depending upon the particular surgical step that is being carried out by the surgeon.

With respect to the feature (1) of the present invention, the cutter holder engages with the tip portion of the grip from one side of either inside or outside of the tip portion and projects from an opposite side of the tip portion. This feature of Claim 1 is also related to the feature (3) of Claim 4 noted above which includes the long hole that penetrates through one side to another side of the tip portion at a central portion thereof. The long hole allows an end of the cutter holder to enter the tip portion from one side and to project from another side of the tip portion.

In the cited Petersen reference, the male coupling half may be inserted within the female coupling half in either one of two diametrically opposed orientations. Thus, the scalpel of the cited Petersen reference is able to establish two ways of

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coupling between the male coupling half and the female coupling half which produces two different angle of the scalpel with respect to the handle. However, the scalpel does not have the structure that enables the cutter holder (male coupling half) engages from one side and projects from the opposite side of the tip portion (fitting or female coupling half). As shown in Figs. 1-6, the male coupling half remains within the female coupling half of the fitting and can never possible to project from the opposite side of the fitting or female coupling half. Therefore, the essential features (1) and (3) of the present invention are not shown or suggested by the cited Petersen reference.

With respect to the feature (2) of the present invention, the cutting edge of the knife main body is oriented upwardly with respect to a blood vessel to be cut. This feature is supported by Figs. 3A and 4-6 and the corresponding description in the specification. Clearly, the cutting edge of the cited Petersen reference is oriented downwardly with respect to the target of the incision. Therefore, the essential feature (2) of the present invention is not shown or suggested by the cited Petersen reference.

The cited Taylor et al. reference is directed to a surgical instrument for making substantially linear incisions through walls of vessels. The hand-held surgical instrument has a cutting edge formed on the interior edge of a curved blade fixed

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near the end of the instrument. The tip of the blade has a point for penetrating the vessel wall which may have several alternate shapes to facilitate penetration of the vessel wall while minimizing to the surrounding tissue. The hand-held surgical instrument includes a moveable member which creates an incision by engaging a cutting blade against a stop, cutting tissue therebetween, the stop including a pointed including a pointed tip similar to the previous embodiment.

Although the cited Taylor et al. reference shows a blood vessel knife, it does not show any idea of changing the angle of the knife by assembling the components in different directions. Contrary to the examiner's comments, the structure of the surgical instrument shown in Fig. 3 is integrally formed and there is no component that establish different angles between the knife main body and the grip when assembled in different manners. In the present invention, such a change of the angle is accomplished by the structural features (1) and (3) that allows the cutting holder to engage with the grip with different directions and project from the opposite side. Throughout the description, the cited Taylor et al. reference does not show such essential features (1) and (3) of the present invention.

Since the essential features of the present invention are not shown or suggested by the cited Petersen reference or the cited Taylor et al. reference, the rejection under 35 U.S.C.

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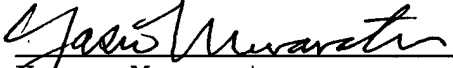
102(b) is no longer applicable to the present invention. Further, since the examiner's rejection to other claims under 35 U.S.C. 103(a) is relied upon the disclosure of the cited Petersen reference or the cited Taylor et al. reference, the rejection under 35 U.S.C. 103(a) is no longer applicable to the present invention.

Under the circumstances, the applicant believes that the present application is in condition for allowance, and the applicant respectfully requests that the present application be allowed and passed to issue.

Respectfully submitted,

MURAMATSU & ASSOCIATES

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By:   
Yasuo Muramatsu  
Registration No. 38,684  
114 Pacifica, Suite 310  
Irvine, CA 92618  
(949) 753-1127

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